STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0122337; AI 145156; PER20060001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. THE APPLICANT IS: Wastewater Treatment - Utilities, Inc.
Grays Creek Subdivision
17188 Airline Hwy, Suite M-157
Prairieville, LA 70769

II. PREPARED BY: Angela Marse

DATE PREPARED: February 27, 2007

III. PERMIT ACTION: LPDES permit LA0122337, AI 145156; PER20060001

LPDES application received: February 18, 2005

LPDES permit issued: none issued

IV. FACILITY INFORMATION:

A. The application is for the discharge of treated sanitary wastewater from a proposed privately owned treatment works serving the Grays Creek Subdivision.

B. The facility is located on the south side of Hwy. 190, 0.2 miles east of Hwy. 1031 in Denham Springs, Livingston Parish.

C. The treatment facility consists of an extended aeration treatment plant. Disinfection is by chlorination.

D. Outfall 001

Discharge Location:	Latitude	30° 29' 01" North
	Longitude	90° 56' 21" West
Description:	treated sanitary wastewater	
Estimated flow:	0.024 MGD	

Type of Flow Measurement which the facility is currently using: measure

V. RECEIVING WATERS:

The discharge is into Grays Creek, thence into the Amite River in segment 040304 of the Lake Ponchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040304 of the Lake Ponchartrain Basin are as indicated in the table below[1/]:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

[1/]The designated uses and degree of support for Segment 040304 of the Lake Ponchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act as amended by the Water Quality Act of 1987, and EPA's regulations at 40 CFR 130 require that each state identify those waters within its boundaries not meeting water quality standards. The Clean Water Act further requires states to implement plans to address impairments. LDEQ is developing Total Maximum Daily Loadings Studies (TMDLs) to address impaired waterbodies. Segment 040304 of the Lake Pontchartrain Basin is on the 2004 Integrated 303(d) List of Impaired Waterbodies. The suspected causes of impairment are pathogen indicators, organic enrichment/low DO, nitrate/nitrite, TDS, sulfates, and phosphorus. To date no TMDLs have been completed for this waterbody.

Until completion of the TMDLs for the Lake Pontchartrain Basin, suspected causes of impairment which are not directly attributed to municipal point sources have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment that could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standards were also eliminated. This determination is made through best professional judgement based upon EPA's determination of patterns in the incidence of pollutants present in sanitary wastewater as per EPA's Proposed Rule of December 6, 1995.

Suspected causes of concern remaining after this elimination process are addressed in a manner consistent with the Department's permitting guidance for implementing Louisiana's surface water quality standards as follows:

Organic enrichment/low DO

$CBOD_5$ is used as a method to measure the amount of dissolved oxygen in the waste stream utilized by organisms during the decomposition of organic material over a five day period when ammonia-nitrogen is a requirement of the permit. Monitoring for dissolved oxygen is the best indicator by which to protect against the potential discharge of DO at levels below that of state water quality standards. To protect against the discharge of oxygen depleting pollutants at levels that would cause in stream oxygen problems, $CBOD_5$ and DO limits have been place in the permit.

Pathogen indicators

Monitoring for fecal coliform is the best indicator for the potential presence of pathogenic organisms in wastewater. To protect against potential receiving water impairments due to pathogens, fecal coliform limits have been established in the permit.

Nitrites, nitrates, and phosphorus

Nitrites, nitrates, and phosphorus are all considered nutrients. Monitoring for ammonia nitrogen is an indicator by which to monitor for the potential presence of nutrients remaining in a waste stream after the nitrification process has taken place. To protect against the potential introduction of nutrients into the receiving waterbody at levels which exceed state water quality standards, ammonia nitrogen limits have been placed in the permit.

LDEQ's declaratory ruling (April 29, 1996) also states "DO is a direct correlate with overall nutrient impact is a well-established biological and ecological principle. Thus, when the LDEQ maintains and protects DO, the LDEQ is in effect also limiting and controlling nutrient concentrations and impacts." Through the previously mentioned $CBOD_5$ and DO limit, LDEQ is also controlling nitrogen and phosphorus. (Phosphorus and nitrite/nitrate are suspected causes of impairment.)

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040304 of the Lake Ponchartrain Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006 from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge will be from a proposed facility. LDEQ has consulted with the State Historic Preservation Officer (SHPO) in a letter dated March 2, 2005 to determine whether construction-related activities could potentially affect sites or properties on or eligible for listing on the National Register of Historic Places. SHPO's response letter, dated March 29, 2005, stated that the facility as proposed will have no potential effects.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mrs. Angela Marse
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Final Effluent Limits:

OUTFALL 001

TMDL studies for the Lake Pontchartrain Basin have not been completed to date. However, a memo dated January 22, 2003 from the LDEQ Engineering and Technology Division to the LDEQ Office of Environmental Services discussed a previous water quality study for the Grays Creek. The study indicates that all point sources will have to meet effluent limits of the 5 mg/l $CBOD_5$/ 5 mg/l TSS/ 2 mg/l ammonia nitrogen/ 5 mg/l dissolved oxygen for the designated uses of the receiving water to be attained. The study hoped to increase the in-stream dissolved oxygen before the TMDL was completed. (This would be a best case scenario to keep post TMDL limits the same as those of the study.) Therefore, effluent limits for the proposed permit are set in accordance with the study.

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg.	Daily Max.	Basis
$CBOD_5$	5 mg/l	10 mg/l	Memo from Marian Aquillard (ETD) to Linda Levy (OES) regarding Grays Creek water quality study. (01/22/03).
TSS	5 mg/l	10 mg/l	Memo from Marian Aquillard (ETD) to Linda Levy (OES) regarding Grays Creek water quality study. (01/22/03).
Ammonia-Nitrogen	2 mg/l	4 mg/l	Memo from Marian Aquillard (ETD) to Linda Levy (OES) regarding Grays Creek water quality study. (01/22/03).
Dissolved Oxygen	5 mg/l	N/A	Memo from Marian Aquillard (ETD) to Linda Levy (OES) regarding Grays Creek water quality study. (01/22/03).

**This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0122337: none issued

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) **Inspections**

A review of the files indicates no inspections have been performed for the facility.

B) **Compliance and/or Administrative Orders**

A review of the files indicates no enforcement actions administered against this facility.

C) **DMR Review**

The facility is a new/proposed facility. They have not submitted any DMRs.

XII. ADDITIONAL INFORMATION:

Please be aware that the Department will be conducting a TMDL in the Lake Ponchartrain Basin scheduled for completion in 2011. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.024 MGD.

Effluent loadings are calculated using the following example:

BOD: 8.34 lb/gal x 0.024 MGD x 5 mg/l = 1 lb/day

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.02 and 0.10MGD.

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Wastewater Treatment - Utilities, Inc.,Grays Creek Subdivision, February 18, 2005.